

AUDIT II

Topic Report Summaries

Topic Report “Monitoring & Evaluation”

Monitoring and evaluation are essential elements in an energy audit programme to provide information on its impact and cost effectiveness. Governments are increasingly demanding to know exactly what comes out of the money and resources they allocate to programmes and schemes in every sector of society, and the energy efficiency field is no exception. In addition, monitoring & evaluation activities are of interest for clients and auditors, since these activities will give them feedback on the result of their efforts.

The aim of energy audits are to improve energy efficiency - the means for this are good energy audit reports which give the client adequate information for implementing the suggested saving measures. The Government institutions/public bodies responsible for an energy audit programme would therefore be interested in information on the impact of the audits, e.g. whether they actually lead to concrete measures or not. This information can be produced with the help of a good monitoring system. Later in the life of a programme, the funding institutions would often also require an independent consideration of its effects. In this case an independent evaluation is carried out with respect to a specific set of quantitative and qualitative indicators.

With regard to monitoring there are different options to choose from, which vary with respect to cost and quality of the information obtained. The topic report on Monitoring and Evaluation deals with these options. The topic report also deals with the characteristics of an evaluation. Furthermore, the report presents some examples of energy audit programmes, or programmes where energy audits are central elements, where the monitoring systems or the evaluation method used merit a closer look.

The report also presents an overview of the kind of monitoring information which is produced in a number of relevant energy efficiency programmes in Europe. On the basis of this information, a short discussion is made on the present situation with regard to monitoring of such programmes in Europe. Finally, the report presents some recommendations with regard to monitoring and evaluation activities in relation to energy audit programmes.

Topic Report “Energy Audit Models”

The topic report “*Energy Audit Models (EAMs)*”, indicates the most replicable *elements and interfaces* of energy audit models. These elements are pointed out through the evaluation of practical national interpretations of the relevant theoretical options. Characteristic practices are presented and the respective elements are recommended on the basis of the collected information, as detailed in the upgraded Country Reports.

The report introduces the reader to the *concept of and benefits from modelling* the energy auditing activities and deals with the basic *theoretical options* on EAMs, as recorded from the international experience, as well as the *practical interpretation of*

these options for specific *target groups*. The practical application options of EAMs are expressed through the indication of the basic *features* of the theoretical options and their *interfaces* to other programme topics.

The report analyses *characteristic examples* of selected *EU Member State interpretations* of EAM options *per target group*, and contains *best practice recommendations* on *replicable elements*, at the European level, of existing national applications of *EAMs* to support the energy auditing programming process at the level of central administration and operational management.

Topic Report “Training, Authorisation and Quality Control”

Energy auditor training, authorisation of energy auditors and quality control are three elements that have many connections and should not be looked at as individual elements but as an essential part of the programme. The Topic Report on Training, Authorisation of energy auditors and Quality Control concentrates on the key questions of these elements.

The aim of an energy auditing activity is to improve energy efficiency - the means for this are good energy audit reports which give the client adequate information for implementing the suggested saving measures. The Administrator and the Operating Agents should therefore put a real effort in ensuring the best possible quality of audit reports - by using training, authorisation and quality control as tools .

There are different options on how to put into practice these three elements which (to some degree) support and compensate each other. Light training and authorisation can be compensated by a strict quality control. On the other hand, if training and authorisation are very demanding with high competence requirements, the quality control can be lighter.

These options should be analysed to find out which combination works best, not only in the country in concern but also in the energy audit activity in concern. The optimal combination is always country- and programme-specific and there is not a state-of-the-art combination, which could be recommended. The Topic Report looks at the different solutions and their combinations, presenting some outcomes.

Although these three elements are probably the elements in an energy audit programme that are the most connected with each other, there are connections to other elements that should also be taken into account. The Topic Report also discusses these connections.

Topic Report “Auditor’s Tools”

The wording "tools for audits" or "auditors' tools" describes a large family of support documents and applications which are intended to facilitate the work of auditors in the view both of minimising audit costs AND maximising audit quality. The Operating Agent (OA) of an Energy Auditing Programme has the responsibility to identify which tools may be needed and to provide them.

The report indicates the most replicable elements and interfaces of energy audit support tools applied in the existing on going Energy Audit Programs (EAPs). It defines a typology and points out the ways the various tools interfere with the auditors activity, phase by phase in the energy auditing business.

A section of the report is devoted to present, from a more analytical point of view, the different options that the OA will face and the consequences of his choices regarding the other topics : implementation & promotion, energy audit models, training, authorization & quality control, and monitoring & evaluation.

In a program there is such a large dependency of one topic to another that the options selected in one case should not disregard the consequences on the other for the best efficiency of the whole scheme.

Other parameters should not be underestimated: cost of tools development, delivery time, liability clauses.

A few specific existing software tools are described in more details to precise their aims, conditions of development and dissemination. Tools selected in some EAPs are also presented from the material collected in the Country Reports.

The report concludes on recommendations so as, depending both on the EAP objectives and consultancy market conditions, to guide the OA in the selection of the most useful tools. For a better adjustment to concrete situations, two working hypothesis are envisaged: 1) starting up a new program 2) administrating and developing

Topic Report “Implementing instruments”

The objective of this report is to analyse the interface to other instruments, by answering the questions:

How can energy audits be integrated effectively in the policy mix?

How can energy audits (EA) be implemented on a broader scale?

The report offers different approaches how EA can be linked effectively to an existing mix of instruments, by taking into account two main paths: the mandatory and the voluntary one, each having several basic options.

These options can consist of one or a combination of the following instruments:

Quasi compulsory“ instruments: this is the case if EA have to be undertaken e.g. within agreements, within labelling schemes or energy management schemes

Promotion/marketing instruments: EA are mainly promoted/marketed by different approaches including brochures/leaflets, events, campaigns, TV ads, Internet etc

Financial incentives: EA are linked to schemes such as taxes, subsidies etc

The most important options will be presented and highlighted by examples.

Furthermore the link to an overall framework such as a climate strategy, energy efficiency action plan etc is explained. The report concludes with recommendations in which cases which options are best suitable, when taking into account existing policy mixes.